



Technology Insertion Hardware

16/18

Industry Day

Full and Open Competition

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Industry Day - 7 May 2013

- **Welcome**
 - Introduction
 - Rules of Engagement
- **Team Overview**
- **Technical Insertion Hardware Description**
- **Rapid COTS Insertion Model**
- **Tech Insertion Approach**
- **Implementation**
- **Procurement Concept**
- **RFP Projected Schedule**



This briefing is for informational purposes only to enhance Industry's understanding of the Team Submarine Technology Insertion Hardware (TIH)16/18 procurement.

If issued, the formal solicitations are the documents upon which Industry should rely on for the purpose of submitting a Proposal.



Introduction

- **Welcome to the Team Submarine Technology Insertion Hardware Industry Day**
- **Please make sure you have signed in at the Registration desk**
- **Restroom Locations/Nearest Exit Information**
- **Purpose of this Industry Day**
 - Provide an element of Market Research
 - Inform Industry
 - Seek feedback



Rules of Engagement

- **Oral questions will be addressed throughout the presentation**
 - Items that will not be discussed: price, current contract performance and/or issues, and evaluation criteria
- **Questions submitted via index cards will be addressed on Navy Electronic Commerce Online (NECO)**
- **All questions and answers will be posted to NECO**
 - However, some questions may be addressed directly in solicitation and may not be posted to NECO
- **Industry day slides will also be posted to NECO**
- **No side bar discussions with Government representatives will be held**



TIH 16/18 Team Overview

NUWC DIVISION KEYPORT - CONTRACT LEAD

Email: KYPT_WA_TEAMSUB_TIH@navy.mil

Phone: (360) 315-3429

Contracts Team

PCO - Karen Smith

Contracting
Specialist
Katie Harrigan

Technical Team

TPM - Greg Pittard

Technical Lead
Amanda
Andrikopoulos

Tech Insertion 16/18 Integrated Product Team

Submarine
Acoustic
Systems
(PMS401)

Submarine
Combat and
Weapons Control
Systems
(PMS425)

**Submarine Warfare Federated
Tactical Systems (SWFTS)**



What Is TI Hardware?

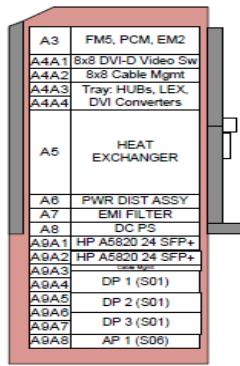
- **TIH 16/18 will provide the latest generation display, processor and network units to Team Submarine systems**
- **Anticipated components include**
 - Computer processing and memory
 - Data storage and extraction
 - Input/Output (I/O) interfaces to support processing systems designed around commercially available hardware and software
- **Procurements may include**
 - Upgrade kits, enclosures, and / or full up systems for SEAWOLF, SSBN, SSGN, 688/688i, VIRGINIA Class, COLLINS Class and future submarine systems/platforms



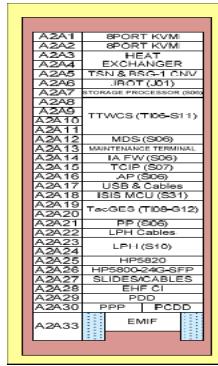
Notional TI Hardware



ECDWS



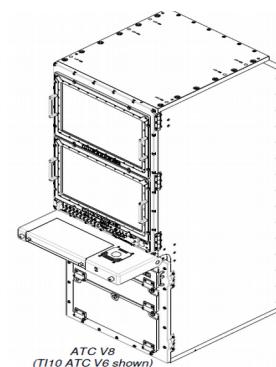
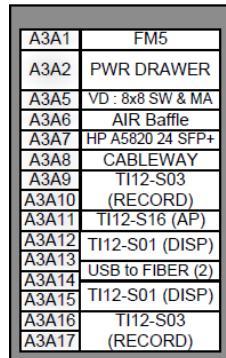
MFS



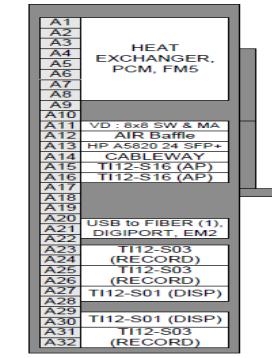
HDW



AEC



ATC



ECDWS: Enhanced Control Display Workstation

HDW: Horizontal Decision Workstation

MFS: Multi Function Subsystem

AEC: Auxiliary Equipment Cabinet

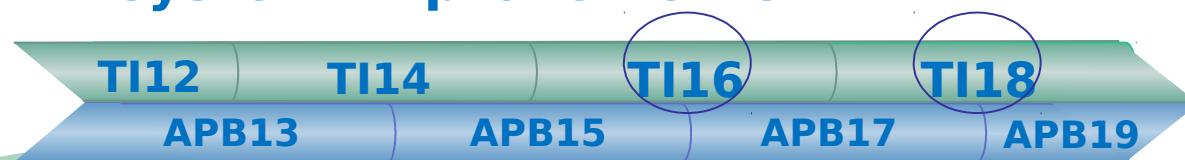
ATC: Advanced Tactical Console



Rapid COTS Insertion

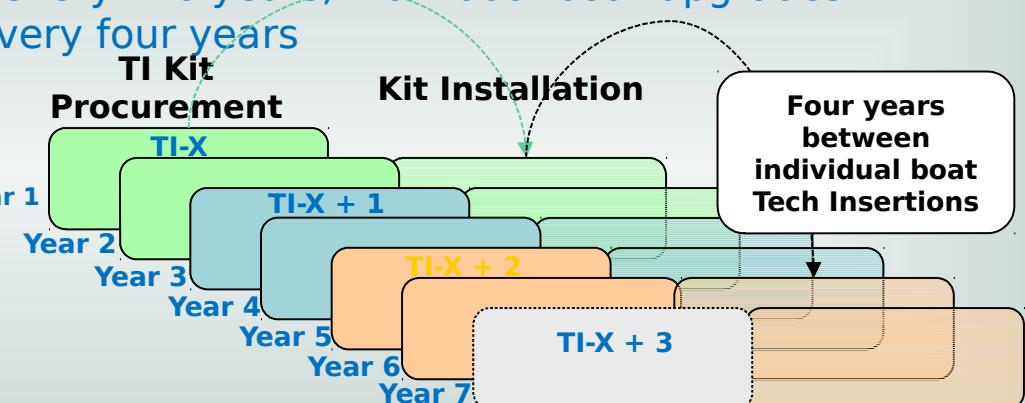
Goals

- Keep pace with technology
- Minimize obsolescence
- Ensure continuous opportunity for system improvements



Uninterrupted Cycle of Tech Insertion Procurements and Installations

- Plan of Record: TIs fielded every two years, individual boat upgrades every four years
- Maintains production industrial base
 - Ensures trained personnel for manufacturing and testing
- Uses “state of the practice” hardware vice “state of the art”
- Ensures broad industry support and competitive pricing





Tech Insertion Approach

- **Standardize the method for regular updates**
 - Migrate technology on Model Year approach across platform types > target every ~2 years
 - Incorporate plan for an individual platform technology upgrade cycle > target every ~4/5 years (every other TI)
- **Develop a system that delivers best value to the Government**
 - Achieve tighter coupling between design/development, and subsequent production for increased cost savings
 - Consolidate number of processing, network and OS variants as technology allows
 - Utilize low cost commodity elements and minimize non-recurring effort for hardware
- **Create efficiencies, reduce risk, and improve overall system reliability**
 - Provide the mechanical infrastructure to ease technology migrations
 - Minimize shipyard / platform impacts
- **Follow market trends of commercial products**



Implementation

- **Approximately 7-12 Platform upgrades per year including new construction units**
- **Individual platforms will receive every other TI**
 - Upgrades every 4 to 5 years
- **Reduced non-recurring effort for hardware development, training and logistics products**
- **First Technology Insertion (TI) introduction occurs 1st quarter every odd Calendar Year (CY)**
- **Sonar and Combat Control installations are aligned**



Defining the Product

How do we tell you what we need?

INITIAL REQUIREMENTS

Program Offices establish requirements for their TI baselines

- Power, weight, cooling
- Installation
- Functionality / capability
- Cost threshold

Sonar and Combat (TC/WC)

DESIGN & DEVELOPMENT

Tech Insertion IPT Conducts Initial Design and Development

- Benchmarks products
- Establishes footprints and unit 'stack-ups' within the footprint
- I/O requirements
- Product selection

PARM Reps
System Developers
TI Hardware Contractor



TI Hardware Contract Relevancy

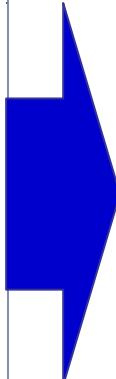
- Contractor early involvement
- Participate in TI IPT & work with PARMs to develop early design concepts & requirements
- Contractor will be provided GFE:
 - Technical Data Package (TDP)
 - Installation Control Drawings (ICD)
 - Configuration Item Specification (CIS)
- Contract Vehicle
 - CPIF for NRE
- Desire to provide incentive for:
 - Technology innovation, evolution & commonality
 - Flexibility
 - Teamwork
 - Ease of construction / installation
 - Ease of maintainability



Building and Testing

Building & Testing Hardware

- Develop build & test procedures
- Initiate logistics development
- Procure COTS HW for PARM early I&T
- Build Engineering Development Models (EDM)
- Develop plan for EQT; conduct EQT testing (if applicable)
- Accomplish performance testing against specifications
- Incorporate feedback into design and ILS
- **Interface with PARMs and TI IPT on all efforts**



TI Hardware Contract Relevancy

- **Contract Vehicle**
 - CPIF for Development / Design NRE
 - CPFF for Procurement of EDMs and advanced integration hardware
- **Desire to provide incentive for:**
 - Flexibility
 - Teamwork / cooperation
 - Workmanship and reliability
 - First pass quality

*Upon design approval from PARM & TI IPT



Producing Hardware

Transition to Production

- Complete design
- Prepare final production drawing package for orderable configuration
- Complete ILS

Hardware Production

- Produce kits, enclosures or other hardware as required
- Factory Acceptance Testing
- Work with vendors

Installation & Field Support

- Install kits or hardware
- Provide support services for installed hardware

TI Hardware Contract Relevancy

- Contract Vehicle
 - FPIF for production
- Desire to provide incentive for:
 - Quality
 - Cost
 - Schedule
 - Workmanship
 - Reliability





Procurement Concept

- **Type of Award**
 - Competitive
- **Contract Type**
 - ID / IQ for Engineering Services, Production and Support
- **Contract Incentives**
 - Cost Plus Incentive Fee (CPIF) for Services
 - Cost Plus Fixed Fee (CPFF) for Hardware Procurement
 - Fixed Price Incentive (Firm Target) (FPIF) for Production
- **Period of Performance anticipated to be**
 - One Year Base Period and Six Option Periods
- **Proposal due 45 days from RFP release**
- **Written volumes only, no oral presentations**



Additional Information

- **Statement of Work (SOW) and CLIN Structure posted on NECO**
- **Industry Next Steps**
 - Electronic Technical Information Center (ETIC) will be available June 2013
 - ETIC availability and access procedures will be posted on NECO
- **Tentative Schedule**
 - RFP release planned ~August 2013
 - 45 days for proposal
 - Target 4th QTR FY14 award